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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/443,262	11/22/1999	JUHA KALLIOKULJU	297-008939-U	6962

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EXAMINER	
LY, NGHI H	

ART UNIT	PAPER NUMBER
2682	6

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/443,262	Applicant(s) KALLIOKULJU ET AL.	
	Examiner Nghi H. Ly	Art Unit 2682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *06 May 2002* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 5-9* is/are rejected.

7)☒ Claim(s) *2-4* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whinnett et al (US 5,943,333) in view of Jayapalan (US 5,561,844).

Regarding claim 1, Whinnett teaches a method for a mobile station for performing a handover (see fig.1 and column 4 lines 26-36) from a first network connection to a second network connection (also see fig.1 and column 4 lines 26-36).

Whinnett does not specifically disclose a method for a mobile station for performing a handover in a mobile telecommunication system providing for non-real time telecommunication connections over a radio interface between mobile stations and the fixed parts of the mobile telecommunication system, comprising in the order recited the steps of: suspending at least one active non-real time telecommunication connection between a mobile station and the fixed parts of the mobile telecommunication system, and resuming the suspended non-real time telecommunication connection.

Jayapalan teaches a method for a mobile station for performing a handover in a mobile telecommunication system providing for non-real time telecommunication connections (see column 2 lines 24-25 "fax transmission") over a radio interface between mobile stations and the fixed parts of the mobile telecommunication system (see fig.2 connection between box 14 and radio interface 10 and see column 2 lines 62-67), comprising in the order recited the steps of: suspending at least one active non-real time (see column 2 lines 24-25 "fax transmission") telecommunication connection between a mobile station and the fixed parts of the mobile telecommunication system (see column 3 lines 52-55 and column 6 lines 39-40), performing a handover (see column 6 lines 42-44), and resuming the suspended non-real time telecommunication connection (also see column 6 lines 42-44). Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to provide the teaching of Jayapalan into the system of Whinnett in order to reduce data loss during cellular handoff (see abstract).

Regarding claim 9, the combination of Jayapalan and Whinnett further teaches a mobile station for communicating with the fixed parts of a mobile telecommunication system over network connections (see Jayapalan column 3 lines 52-55), comprising means for executing the method according to claim 1 in order to perform a handover from a first network connection to a second network connection (see Whinnett fig.1 and column 4 lines 26-36).

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Whinnett et al (US 5,943,333) in view of Jayapalan (US 5,561,844) and further in view of the admitted prior art.

Regarding claim 5, the combination of Whinnett and Jayapalan teaches the non-real time telecommunication connections (see Jayapalan column 2 lines 24-25 "fax transmission").

The combination of Whinnett and Jayapalan does not specifically disclose telecommunication connections are arranged according to a certain structure of protocol stacks in a mobile station, a radio access network, a serving support node of a packet-switched data transfer network and a gateway support node of a packet-switched data transfer network, and the method comprises the steps of: communicating between a number of first peer entities between the mobile station and the radio access network, and the first peer entities are composed of a physical layer, a Media Access Control layer and a Radio Link Control layer, and a Network Service layer and a protocol layer for communication between the radio access network and the packet-switched data

transfer network, and a Subnetwork Dependent Control Protocol Layer which in the mobile station is immediately on top of the Radio Link Control layer and in the serving support node of a packet-switched data transfer network is immediately on top of the protocol layer for communication between the radio access network and the packet-switched data transfer network.

The admitted prior art teaches telecommunication connections are arranged according to a certain structure of protocol stacks in a mobile station (see fig.1 box MS), a radio access network (see Back ground of the invention page 2 lines 8-9 or Radio network controllers), a serving support node of a packet-switched data transfer network and a gateway support node of a packet-switched data transfer network (see Back ground of the invention page 2 lines 8-9), and the method comprises the steps of: communicating between a number of first peer entities between the mobile station and the radio access network (see Back ground of the invention page 1 lines 21-23) , and the first peer entities are composed of a physical layer (see Back ground of the invention page 1 lines 16-21), a Media Access Control layer (see fig.1 box 102) and a Radio Link Control layer (see fig.1 box 103), and a Network Service layer (see fig.1 box 105) and a protocol layer (see Back ground of the invention page 1 line 21-23) for communication between the radio access network and the packet-switched data transfer network, and a Subnetwork Dependent Control Protocol Layer (see fig.1 box 108) which in the mobile station is immediately on top of the Radio Link Control layer (see fig.1 box 103) and in the serving support node of a packet-switched data transfer network is immediately on top of the protocol layer for communication between the radio

access network and the packet-switched data transfer network (see Back ground of the invention page 1 line 15-16). Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to provide the teaching of the admitted prior art into the system of Whinnett and Jayapalan in order to ensure a sufficient data transmission performance.

The combination of Whinnett, Jayapalan and the admitted prior art does not specifically disclose the communicating between a number of second or third peer entities between the radio access network and the serving support node of a packet-switched data transfer network. However, such as number of peer entities would have been obvious since the particular number of peer entities could have been determined by the inventors' choice. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to select such number of peer entities so that signals could be transmitted to many entities at the same time.

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Whinnett et al (US 5,943,333) and Jayapalan (US 5,561,844) and further in view of the admitted prior art and Frodigh et al (US 6,122,293).

Regarding claim 6, the combination of Whinnett, Javapalan and the admitted prior art teaches the Radio Link Control layer (see Applicant's Background of the invention page 1, lines 18-21). The combination of the admitted prior art, Whinnett and Javapalan does not specifically disclose the steps of performing error detection and error-related retransmission as well as flow control between the mobile station and the

radio access network. Frodigh teaches the steps of performing error detection and error-related retransmission as well as flow control between the mobile station and the radio access network (see column 4 line 56-59). Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify the teaching of Frodigh into the system of the admitted prior art, Whinnett and Javapalan in order to eliminate error during data transmission.

6. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Whinnett et al (US 5,943,333) in view of Jayapalan (US 5,561,844) and further in view of Frodigh et al (US 6,122,293).

Regarding claim 7, the combination of Whinnett and Jayapalan teaches a first network connection and the second network connection (see Whinnett fig.1 and column 4 lines 26-36) are packet-switched connections (see Applicant's Background of the invention page 2 lines 6-9). The combination of Whinnett and Jayapalan does not specifically disclose the connections for transmitting error critical data. Frodigh teaches connections for transmitting error critical data (see column 8 line 56-60). Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to provide the teaching of Frodigh into the system of Whinnett and Jayapalan in order to eliminate error during data transmission.

7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Whinnett et al (US 5,943,333) in view of Jayapalan (US 5,561,844) and and further in view of Kanerva et al (US 6,052,385).

Regarding claim 8, the combination of Whinnett and Jayapalan teaches the first network connection and the second network connection (see Whinnett fig.1 and column 4 lines 26-36). The combination of Whinnett and Jayapalan does not specifically disclose the non-transparent circuit-switched connections. Kanerva teaches the non-transparent circuit-switched connections (see abstract and column 11 lines 10-15). Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to provide the teaching of Kanerva into the system of the combination of Whinnett and Jayapalan in order to reduce interference and power consumption (see abstract).

Allowable Subject Matter

8. Claims 2-4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claims 2 and 4, the admitted prior art teaches network controller to a first serving node of a packet-switched data transmission network and the (see Applicant's Background of the invention page 2 lines 6-9). The combination of Whinnett and Jayapalan teaches the first network connection is a connection from the mobile

station and the second network connection is a connection from the mobile station via a second radio network (see Whinnett fig.1 and column 4 lines 26-36).

The combination of admitted prior art, Whinnett and Jayapalan fails to teaches the step of performing a handover comprises the substeps of: exhausting through the first network connection all transmission buffers that, at the time of suspending said at least one active non-real time telecommunication connection.

Response to Arguments

9. Applicant's arguments with respect to claims 1 and 5-9 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nghi H. Ly whose telephone number is (703) 605-5164. The examiner can normally be reached on 8:30 am-5:30 pm Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on (703) 308-6739. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Nghi H. Ly

September 20, 2002

9/20/02

NGUYEN T. VO
PRIMARY EXAMINER